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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,721	03/25/2004	Kenneth C. Gross	03226.410001:SUN040661	8175
32615 7590 01/17/2007 OSHA LIANG L.L.P./SUN 1221 MCKINNEY, SUITE 2800 HOUSTON, TX 77010			EXAMINER DESTA, ELIAS	
			ART UNIT 2857	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/809,721

Applicant(s)

GROSS ET AL.

Examiner

Elias Desta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Detailed Action*

*Claim rejection – 35 U.S.C. 112*

1. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In reference to claim 1: the method of detecting the change in physical variable that comprises “updating current frequency of occurrences of a particular quantized value in response to an occurrence of a particular quantized value” does not amount to a definite or known parameterization because it is hard to understand what threshold or reference value is assumed or considered in order to update the frequency of “a particular quantized value”. Further the “physical variable” is not a defined term.

In reference to claims 1, 13, 18, 20 and 25: just simply indicating or identifying that a certain parameter is changing depending on the relative comparison does not make the outcome definite. The change has to be a “defined” and “measurable” parameter since the claimed invention is directed to “quantized values”.

*Claim rejection – 35 U.S.C. 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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3. Claims 1-29 are directed to non-statutory subject matter. In reference to claims 1, 13, 18, 20 and 25: the output from the system that includes “selectively issuing an indication that the physical variable is changing” (claim 1), “selectively indicating that the signal is changing” (claim 13); “determining ...quantized value is statistically different”(claim 18); “indicating that the physical variable is changing”(claim 20); and “selectively issuing an indication that the signal is changing”(claim 25) does not amount to a concrete output.

The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. Referring to the “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” in determining whether the claim is for a "practical application," the focus is not on whether

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the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete."

The step of "selecting" or "selectively" issuing or "indicating" a change based on a particular preliminary value does not constitute a useful, concrete and tangible output, because if the "selective issuance" does not occur there is no value attributed in the system that provides a measurable or quantifiable quantity that signifies "useful, concrete and tangible" output; for instance, how such an outcome may be communicated to the end user and what quantifiable outcome can be considered so that the output may be presented as "useful, concrete and tangible".

With regard to claim 18, applicant has stated "...the second plurality of quantized values is statistically different than the reference mean frequency... of ... at least one different quantized value" and yet there is no measurable comparison that shows "useful, concrete, tangible" outcome. Further, the step of "determining" the statistical evaluation of the outcome is not considered a tangible output. Therefore, the claim is more directed to a statistical comparison of a parameter value without having the proper quantifiable indicators that provides a "useful, concrete and tangible" output. Therefore, in the absence of a "useful, concrete and tangible" result, the claims are deemed to be non-statutory.

### *Conclusion*

4. Citation of pertinent prior art:

- Gross et al. (U.S. PAP 2005/0188263) teaches detecting and correcting a failure sequence in a computer system before a failure occurs.
- Ohki et al. (IEEE Article, 'Design Support to Determine the Range of Design Parameters by Qualitative Reasoning') teaches a case study of a new application of quantitative reasoning by having valid ranges for design parameters after the structure has been determined.
- Soler et al. (U.S. Patent 7,023,581) teaches a method for compensating for drift and sensor proximity in a scanning sensor in color calibrating incremental printers.
- Best et al. (U.S. Patent 6,961,862) teaches drift-tracking feedback for communication channels.
- Grisenko et al. (U.S. Patent 6,377,840) teaches signal acquisition and processing system for reduced output signal drift in a spectrophotometer.
- Takamizawa et al. (U.S. Patent 5,841,377) teaches an improvement of an adaptive transform coding system and adaptive transform decoding system.
- Chodora (U.S. Patent 6,147,501) teaches automatic calibration of a network analyzer.
- Wilkinson (U.S. Patent 5,218,486) teaches correction of long-term drift and short-term fluctuating corruption of a signal.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214.

The examiner can normally be reached on M-Th (8:30-7:00).

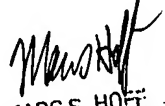
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elias Desta  
Examiner  
Art Unit 2857

-E.d

January 5, 2007

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
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